

Engineering Statement (continued).....

FM Channel 207 Preclusion

WFPL, Louisville, KY operates on 207C1, 89.3MHz., with 100Kw. E.R.P. from 72 meters antenna H.A.A.T. The proposed 100 dBu F(50,10) contour must not cross the WFPL 60 dBu F(50,50) and the WFPL 100 dBu F(50,10) contour must not cross the proposed 60 dBu F(50,50) contour. The 100 dBu F(50,50) contours for the proposed and for WFPL are plotted instead of the F(50,10) contours. The attached computer plots show clearance.

The proposed operation neither causes interference to nor receives interference from any FM channel 207 station or proposal.

IF Channel Preclusions

WSCH, Aurora, IN operates on 257A, 99.3MHz., with 1.15Kw. E.R.P. from 160 meters antenna H.A.A.T. Ten (10) kilometer clearance is required between the WSCH site and the proposed site. The WSCH site has been computer plotted with the proposed site. There is no prohibited overlap.

WKDQ, Henderson, KY operates on 258C, 99.5MHz., with 100Kw. E.R.P. from 300 meters antenna H.A.A.T. Twenty-nine (29) kilometer clearance is required between the WKDQ site and the proposed site. The WKDQ site has been computer plotted with the

Engineering Statement (continued).....

proposed site. There is no prohibited overlap.

The proposed operation has no prohibited overlap with any FM channel 257 or 258 station or proposal.

All computer maps submitted are presented with and without county boundaries.

It is proposed to use a type approved FM transmitter feeding approximately 53.3 meters of Andrew LDF5-50A, 22.225 mm (7/8 inch) diameter foam dielectric heliax cable, which will supply power to the two-bay (2) Electronics Research, Inc. P-300-2 vertical only antenna. This antenna has a power gain of 1.97 so the antenna input power required for an Effective Radiated Power of 1.70Kw. is attained with a 1000 watt transmitter. The Effective Radiated Power Proposed is 1.70 Kw.(v) from an antenna Height Above Average Terrain of 78 meters (v).

The main studio will be located within the city grade contour.

A copy of a portion of the ST. LOUIS Sectional Aeronautical Chart is attached, which illustrates the location of the Proposed Predicted 3.16 mV/m and 1 mV/m contours. The Area and Population within the 1 mV/m contour is noted on this map and as follows:

Area within 1 mV/m contour =	1,090.34 square kilometers
Population (1990 Census) =	29,663 people

Engineering Statement (continued).....

The population data was obtained from the Communications Data Services, Inc. POPULATION COUNT Program and the population tabulations are included as a part of this report.

No environmental assessment statement is included because a Commission grant of this application would not come within Section 1.1307 of the FCC Rules such that it may have a significant environmental impact. The proposed facility will not

- (a) Be located in a sensitive area
- (b) Involve significant change in surface features
- (c) Be located in a residential neighborhood and be equipped with high intensity white lights
- (d) Will not cause excessive radiofrequency exposure to workers or to the general public

The Proposed Predicted 63 Volt/Meter contour extends to 4.6 meters from the antenna, which has been calculated using the free-space equation for 1,700 watts, as follows:

$$D = 23/(V/M) \times (E.R.P.)^2/3.28084$$

where

D = distance in meters to listed contour
V/M = contour desired in volts/meter
E.R.P. = Effective Radiated Power in Watts
(Sum of horizontal and vertical)

The proposed antenna is located 46 meters, to the center of radiation, above ground level at the site and the 63 Volt/Meter contour occurs at 4.6 meters, from the antenna; therefore, no ground level radiation hazard will occur from the proposed operation.

Engineering Statement (continued).....

The attached copy of FM Table 1 from OST Bulletin No. 65 dated October, 1985, Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation shows that for a 2-bay antenna with 3.00 Kw. E.R.P., the antenna center of radiation should be located from 4.7 to 10.0 meters above ground. The proposed antenna will radiate a total power of 1.70 Kw. and will be 46 meters, to the center of radiation, above ground level; therefore, it is in compliance with the rule.

The Proposed Predicted 562 mV/m (115 dbu) blanketing contour has been calculated using the formula in Paragraph 73.318 (a) of the Rules. This contour falls at 0.514 kilometer, for 1.70 Kw. E.R.P.

The power density at the base of the proposed tower has been calculated to be 0.0104 milliwatts per square centimeter using the following formula:

$$S = (EIRP \times 0.64) / (3.14159 \times R^2)$$

where:

S = power density in milliwatts per square centimeter
EIRP = ERP x 1.64 (gain half-wave dipole/isotropic radiator)
0.64 = ground reflection factor
R = distance from radiator to ground in centimeters

Radiofrequency Radiation Exposure to Authorized Workers

In accordance with FM Table 1 from OST Bulletin No. 65 dated

Engineering Statement (continued).....

October, 1985, Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation no worker will be allowed within 4.7 meters of the FM broadcast antenna unless the transmitter is turned off.

The 63 volt/meter contour is predicted to fall at a distance of 4.6 meters from the center of radiation of the antenna. Applicant will not allow authorized workers on the tower any closer than 4.6 meters from the nearest point of the FM broadcast antennae without either reducing power to a level so that the worker would not be within the 63 volt/meter contour or by merely turning the transmitter off.

Power density calculations reveal that a power density of 0.89 mW/cm^2 would be encountered at a distance of 8 meters from the FM antenna. In order to prevent exposure of a worker to the prohibited 1 mW/cm^2 power level, power will either be reduced or the transmitter turned off if it is necessary for authorized workers to approach within 8 meters of the FM antenna.

In summary, because the power density calculation imposes the greatest distance from the antenna for harmful radiation to occur, applicant will reduce power as required or turn the transmitter off if any authorized worker is allowed within 8 meters of the FM antenna.

Engineering Statement (continued).....

This FM application, if granted, will provide a new local full-time noncommercial educational broadcast service for Loogootee, IN and surrounding areas.

Music Ministries, Inc. Requests CP NEW
Noncommercial Educational FM Broadcast
Station, Loogootee, IN. Three (3) Arc-
Second Terrain Averaging Program from
EDX Engineering, Inc. Prepared by Paul
Dean Ford, P.E. January 20, 1992.

JOB TITLE: Music Ministries, Inc.
Three (3) arc-second terrain data used
Center of Radiation: 46 Meters Above Ground Level
232 Meters Above Mean Sea Level
78 Meters Antenna H. A. A. T.

Site Coordinates:

Latitude: 38-38-30
Longitude: 86-59-57

Bearing (Deg.-True)	3-16 Kilometer Average Terrain	Effective Antenna Height
.0	156.8 Meters	75.2 Meters
45.0	158.8	73.2
*60.9	151.1	80.9
90.0	164.4	67.6
135.0	155.5	76.5
180.0	146.5	85.5
225.0	155.1	76.9
270.0	150.4	81.6
315.0	146.8	85.2
Average:	<u>154.3 Meters</u> (154 to nearest meter)	<u>77.7 Meters</u> (78 to nearest meter)

* Not used to determine antenna height above average terrain

Music Ministries, Inc. Requests CP NEW
Noncommercial Educational FM Broadcast
Station, Loogootee, IN. Three (3) Arc-
second terrain data used. Contours
Program from EDX Engineering, Inc. This
Exhibit Prepared by Paul Dean Ford, P.E.
January 20, 1992.

TITLE: Music Ministries, Inc.
Channel 204A, 88.7MHz. 1.70Kw. E.R.P. (v)
from 78 meters antenna H.A.A.T.

DISTANCES TO CONTOURS (Kilometers):

Frequency: 88.7000 MHz

F(50,50) Curves Number of Contours: 4

AZ (degs)	HAAT (m)	ERP (dBk)	CONTOUR LEVELS (dBu):			
			100.0	80.0	70.0	60.0
.0	75	2.30	1.7	5.7	10.3	18.3
45.0	73	2.30	1.7	5.7	10.1	18.0
*60.9	81	2.30	1.8	6.0	10.7	19.0
90.0	68	2.30	1.7	5.5	9.7	17.3
135.0	76	2.30	1.7	5.8	10.4	18.4
180.0	86	2.30	1.8	6.1	11.0	19.6
225.0	77	2.30	1.7	5.8	10.4	18.5
270.0	82	2.30	1.8	6.0	10.7	19.1
315.0	85	2.30	1.8	6.1	11.0	19.5

* city radial

DISTANCES TO CONTOURS (Kilometers):

Frequency: 88.7000 MHz

F(50,10) Curves Number of Contours: 3

AZ (degs)	HAAT (m)	ERP (dBk)	CONTOUR LEVELS (dBu):		
			56.2	54.0	40.0
.0	75	2.30	23.9	27.2	62.2
45.0	73	2.30	23.5	26.8	61.7
*60.9	81	2.30	24.8	28.3	63.4
90.0	68	2.30	22.5	25.7	60.2
135.0	76	2.30	24.1	27.5	62.5
180.0	86	2.30	25.6	29.1	64.3
225.0	77	2.30	24.2	27.5	62.5
270.0	82	2.30	25.0	28.4	63.5
315.0	85	2.30	25.5	29.0	64.2

* city radial

Music Ministries, Inc. Requests CP NEW
Noncommercial Educational FM Broadcast
Station, Loogootee, IN. Three (3) Arc-
second terrain data used. Contours
Program from EDX Engineering, Inc. This
Exhibit Prepared by Paul Dean Ford, P.E.
January 20, 1992.

TITLE: W06BD, Princeton, IN LPTV on TV Channel 6
Three (3) arc-second terrain data used
Center of Radiation: 210 Meters Above Mean Sea Level
75 Meters Antenna H. A. A. T.
0.02 Kw. E.R.P. (-16.9897dBk)

Site Coordinates:

Latitude: 38-21-56
Longitude: 87-34-54

Bearing (Deg.-True)	3-16 Kilometer Average Terrain	Effective Antenna Height
.0	132.6 Meters	77.3 Meters
45.0	138.9	71.0
90.0	137.7	72.2
135.0	140.8	69.1
180.0	140.0	69.9
225.0	144.8	65.1
270.0	122.5	87.4
315.0	121.9	88.0
Average	134.9 meters	75.0 meters

W06BD, Princeton, Indiana LPTV Channel 6

DISTANCES TO CONTOURS (Kilometers):

Frequency: 83.2500 MHz

F(50,50) Curves Number of Contours: 1

AZ (degs)	HAAT (m)	ERP (dBk)	CONTOUR LEVELS (dBu):
.0	77	-16.99	47.0
45.0	71	-16.99	12.9
90.0	72	-16.99	12.4
135.0	69	-16.99	12.5
180.0	69	-16.99	12.2
225.0	70	-16.99	12.3
270.0	65	-16.99	11.8
315.0	87	-16.99	13.7
	88	-16.99	13.8

Music Ministries, Inc. Requests CP NEW
Noncommercial Educational FM Broadcast
Station, Loogootee, IN. Three (3) Arc-
second terrain data used. Contours
Program from EDX Engineering, Inc. This
Exhibit Prepared by Paul Dean Ford, P.E.
January 20, 1992.

TITLE: W06BM, Hawesville, KY LPTV on TV Channel 6
Three (3) arc-second terrain data used
Center of Radiation: 198 Meters Above Mean Sea Level
50 Meters Antenna H. A. A. T.
0.03 Kw. E.R.P. (-15.2288 dBk)

Site Coordinates:

Latitude: 37-54-20
Longitude: 86-45-30

Bearing (Deg.-True)	3-16 Kilometer Average Terrain	Effective Antenna Height
.0	140.4 Meters	57.6 Meters
45.0	166.7	31.3
90.0	132.3	65.7
135.0	162.5	35.5
180.0	160.8	37.2
225.0	150.8	47.2
270.0	137.9	60.1
315.0	128.3	69.7
Average	147.5 meters	50.5 meters

DISTANCES TO CONTOURS (Kilometers):

Frequency: 83.2500 MHz

F(50,50) Curves Number of Contours: 1

AZ (degs)	HAAT (m)	ERP (dBk)	CONTOUR LEVELS (dBu): 47.0
.0	58	-15.23	12.3
45.0	31	-15.23	9.0
90.0	66	-15.23	13.1
135.0	35	-15.23	9.6
180.0	37	-15.23	9.8
225.0	47	-15.23	11.1
270.0	60	-15.23	12.5
315.0	70	-15.23	13.5

Music Ministries, Inc. Requests CP NEW
Noncommercial Educational FM Broadcast
Station, Loogootee, IN. Three (3) Arc-
second terrain data used. Contours
Program from EDX Engineering, Inc. This
Exhibit Prepared by Paul Dean Ford, P.E.
January 20, 1992.

TITLE: NEW-T, Louisville, KY TV Translator on TV Channel 6
Three (3) arc-second terrain data used
Center of Radiation: 266 Meters Above Mean Sea Level
109 Meters Antenna H. A. A. T.
0.06 Kw. E.R.P. (-12.2185 dBk)

Site Coordinates:

Latitude: 38-09-30
Longitude: 85-48-51

Bearing (Deg.-True)	3-16 Kilometer Average Terrain	Effective Antenna Height
.0	128.3 Meters	137.9 Meters
45.0	145.5	120.7
90.0	145.8	120.4
135.0	156.5	109.7
180.0	193.5	72.7
225.0	141.7	124.5
270.0	188.7	77.5
315.0	157.3	108.9
Average	157.2 meters	109 meters

DISTANCES TO CONTOURS (Kilometers):

Frequency: 83.2500 MHz

F(50,50) Curves Number of Contours: 1

AZ (degs)	HAAT (m)	ERP (dBk)	CONTOUR LEVELS (dBu): 47.0
.0	138	-12.22	22.8
45.0	121	-12.22	21.3
90.0	120	-12.22	21.3
135.0	110	-12.22	20.3
180.0	73	-12.22	16.4
225.0	125	-12.22	21.6
270.0	78	-12.22	16.9
315.0	109	-12.22	20.2

Music Ministries, Inc. Requests CP NEW
Noncommercial Educational FM Broadcast
Station, Loogootee, IN. Three (3) Arc-
second terrain data used. Contours
Program from EDX Engineering, Inc. This
Exhibit Prepared by Paul Dean Ford, P.E.
January 20, 1992.

TITLE: WRTV, Indianapolis, IN Full Power TV Channel 6
Three (3) arc-second terrain data used
Center of Radiation: 557 Meters Above Mean Sea Level
302 Meters Antenna H. A. A. T.
100.0 Kw. E.R.P. (20.0 dBk)

Site Coordinates:

Latitude: 39-53-59
Longitude: 86-12-02

Bearing (Deg.-True)	3-16 Kilometer Average Terrain	Effective Antenna Height
.0	276.3 Meters	281.1 Meters
45.0	256.4	301.0
90.0	246.0	311.4
135.0	241.2	316.2
180.0	226.3	331.1
225.0	250.4	307.0
270.0	271.2	286.2
315.0	275.4	282.0
Average	255.4 meters	302.0 meters

DISTANCES TO CONTOURS (Kilometers):

Frequency: 83.2500 MHz

F(50,50) Curves Number of Contours: 1

AZ (degs)	HAAT (m)	ERP (dBk)	CONTOUR LEVELS (dBu): 47.0
.0	281	20.00	102.1
45.0	301	20.00	103.8
90.0	311	20.00	104.7
135.0	316	20.00	105.1
180.0	331	20.00	106.3
225.0	307	20.00	104.3
270.0	286	20.00	102.6
315.0	282	20.00	102.2

Music Ministries, Inc. Requests CP NEW
Noncommercial Educational FM Broadcast
Station, Loogootee, IN. Three (3) Arc-
second terrain data used. Contours
Program from EDX Engineering, Inc. This
Exhibit Prepared by Paul Dean Ford, P.E.
January 20, 1992.

TITLE: WPTH, Olney, IL FM 201A, 88.1mHz., 0.01Kw. 62meters
Three (3) arc-second terrain data used
Center of Radiation: 209 Meters Above Mean Sea Level
62 Meters Antenna H. A. A. T.
0.01 Kw. E.R.P. (-20.0 dBk)

Site Coordinates:

Latitude: 38-41-50
Longitude: 88-02-15

Bearing (Deg.-True)	3-16 Kilometer Average Terrain	Effective Antenna Height
.0	154.5 Meters	54.5 Meters
45.0	151.9	57.1
90.0	156.5	52.5
135.0	146.0	63.0
180.0	153.3	55.7
225.0	131.1	77.9
270.0	135.7	73.3
315.0	146.5	62.5
Average	146.9 meters	62.0 meters

DISTANCES TO CONTOURS (Kilometers):

Frequency: 88.1000 MHz

F(50,50) Curves Number of Contours: 2

AZ (degs)	HAAT (m)	ERP (dBk)	CONTOUR LEVELS (dBu):	
			100.0	60.0
.0	55	-20.00	.0	4.3
45.0	57	-20.00	.0	4.4
90.0	53	-20.00	.0	4.2
135.0	63	-20.00	.0	4.6
180.0	56	-20.00	.0	4.3
225.0	78	-20.00	.0	5.1
270.0	73	-20.00	.0	5.0
315.0	62	-20.00	.0	4.6

Music Ministries, Inc. Requests CP NEW
Noncommercial Educational FM Broadcast
Station, Loogootee, IN. Three (3) Arc-
second terrain data used. Contours
Program from EDX Engineering, Inc. This
Exhibit Prepared by Paul Dean Ford, P.E.
January 20, 1992.

TITLE: WNIN-FM, Evansville, IN FM 202B, 88.3mHz., 45.0Kw. 155meters
Three (3) arc-second terrain data used
Center of Radiation: 279 Meters Above Mean Sea Level
155 Meters Antenna H. A. A. T.
45.0 Kw. E.R.P. (16.5321 dBk)

Site Coordinates:

Latitude: 38-01-27
Longitude: 87-21-43

Bearing (Deg.-True)	3-16 Kilometer Average Terrain	Effective Antenna Height
.0	136.0 Meters	143.3 Meters
45.0	135.3	144.0
90.0	125.4	153.9
135.0	121.3	158.0
180.0	117.3	162.0
225.0	120.1	159.2
270.0	116.8	162.5
315.0	122.6	156.7
Average	<u>124.3</u> meters	<u>155.0</u> meters

DISTANCES TO CONTOURS (Kilometers):

Frequency: 88.3000 MHz

F(50,50) Curves Number of Contours: 2

AZ (degs)	HAAT (m)	ERP (dBk)	CONTOUR LEVELS (dBu):	
			80.0	60.0
.0	143	16.53	18.1	50.4
45.0	144	16.53	18.2	50.5
90.0	154	16.53	18.8	51.7
135.0	158	16.53	19.1	52.2
180.0	162	16.53	19.4	52.6
225.0	159	16.53	19.2	52.3
270.0	162	16.53	19.4	52.7
315.0	157	16.53	19.0	52.0

Music Ministries, Inc. Requests CP NEW
Noncommercial Educational FM Broadcast
Station, Loogootee, IN. Three (3) Arc-
second terrain data used. Contours
Program from EDX Engineering, Inc. This
Exhibit Prepared by Paul Dean Ford, P.E.
January 20, 1992.

TITLE: WCRT (CP), Terre Haute, IN FM 203B, 88.5MHz., 0.55Kw. 94meters
Three (3) arc-second terrain data used
Center of Radiation: 261 Meters Above Mean Sea Level
94 Meters Antenna H. A. A. T.
0.55 Kw. E.R.P. (-2.5964 dBk) assumed ND

Site Coordinates:

Latitude: 39-30-14
Longitude: 87-26-37

Bearing (Deg.-True)	3-16 Kilometer Average Terrain	Effective Antenna Height
.0	175.6 Meters	85.4 Meters
45.0	156.2	104.8
90.0	163.4	97.6
135.0	158.8	102.2
180.0	144.1	116.9
225.0	161.1	99.9
270.0	179.5	81.5
315.0	193.6	67.4
Average	166.5 meters	94.5 meters

DISTANCES TO CONTOURS (Kilometers): Frequency: 88.5000 MHz

F(50,50) Curves			Number of Contours: 1
AZ (degs)	HAAT (m)	ERP (dBk)	CONTOUR LEVELS (dBu):
.0	85	-2.60	60.0
45.0	105	-2.60	14.7
90.0	98	-2.60	16.2
135.0	102	-2.60	15.6
180.0	117	-2.60	16.0
225.0	100	-2.60	17.2
270.0	81	-2.60	15.8
315.0	67	-2.60	14.3

F(50,10) Curves			Number of Contours: 1
AZ (degs)	HAAT (m)	ERP (dBk)	CONTOUR LEVELS (dBu):
.0	85	-2.60	54.0
45.0	105	-2.60	21.7
90.0	98	-2.60	24.3
135.0	102	-2.60	23.4
180.0	117	-2.60	24.0
225.0	100	-2.60	25.7
270.0	81	-2.60	23.7
315.0	67	-2.60	21.1

Music Ministries, Inc. Requests CP NEW
Noncommercial Educational FM Broadcast
Station, Loogootee, IN. Three (3) Arc-
second terrain data used. Contours
Program from EDX Engineering, Inc. This
Exhibit Prepared by Paul Dean Ford, P.E.
January 20, 1992.

TITLE: WJIE, Okolona, KY FM 203C2, 88.5mHz., 24.5Kw. 190 meters
Three (3) arc-second terrain data used

Center of Radiation: 363 Meters Above Mean Sea Level

190 Meters Antenna H. A. A. T.

24.5 Kw. (DA) E.R.P.(13.8917 dBk) assumed ND

Site Coordinates:

Latitude:	38-01-59		
Longitude:	85-45-16		
Bearing	3-16 Kilometer	Effective	
(Deg.-True)	Average Terrain	Antenna Height	
.0	168.2 Meters	194.7 Meters	
45.0	177.1	185.8	
90.0	170.0	192.9	
135.0	169.5	193.4	
180.0	155.2	207.7	
225.0	195.8	167.1	
270.0	167.0	195.9	
315.0	180.6	182.3	
Average	172.9 Meters	190.0 Meters	

DISTANCES TO CONTOURS (Kilometers):

Frequency: 88.5000 MHz

F(50,50) Curves Number of Contours: 1

AZ	HAAT	ERP	CONTOUR LEVELS (dBu):
(degs)	(m)	(dBk)	
.0	195	13.89	60.0
45.0	186	13.89	50.4
90.0	193	13.89	49.7
135.0	193	13.89	50.3
180.0	208	13.89	50.3
225.0	167	13.89	51.5
270.0	196	13.89	47.8
315.0	182	13.89	50.5
			49.4

F(50,10) Curves Number of Contours: 1

AZ	HAAT	ERP	CONTOUR LEVELS (dBu):
(degs)	(m)	(dBk)	
.0	195	13.89	54.0
45.0	186	13.89	73.9
90.0	193	13.89	72.5
135.0	193	13.89	73.6
180.0	208	13.89	73.7
225.0	167	13.89	75.7
270.0	196	13.89	70.3
315.0	182	13.89	74.0
			72.1

Music Ministries, Inc. Requests CP NEW
Noncommercial Educational FM Broadcast
Station, Loogootee, IN. Three (3) Arc-
second terrain data used. Contours
Program from EDX Engineering, Inc. This
Exhibit Prepared by Paul Dean Ford, P.E.
January 20, 1992.

TITLE: NEW-T, APC Terre Haute, IN FM 204FT, 88.7MHz., 0.11Kw. 95meters
Three (3) arc-second terrain data used
Center of Radiation: 262 Meters Above Mean Sea Level
95 Meters Antenna H. A. A. T.
0.11Kw. E.R.P.(DA) (-9.5861 dBk) assumed ND

Site Coordinates:

Latitude:	39-30-14		
Longitude:	87-26-37		
Bearing	3-16 Kilometer	Effective	
(Deg.-True)	Average Terrain	Antenna Height	
.0	175.6 Meters	86.4 Meters	
45.0	156.2	105.8	
90.0	163.4	98.6	
135.0	158.8	103.2	
180.0	144.1	117.9	
225.0	161.1	100.9	
270.0	179.5	82.5	
315.0	193.6	68.4	
Average	166.5 Meters	95.0 meters	

DISTANCES TO CONTOURS (Kilometers):

Frequency: 88.7000 MHz

F(50,50) Curves Number of Contours: 1

AZ	HAAT	ERP	CONTOUR LEVELS (dBu):
(degs)	(m)	(dBk)	60.0
.0	86	-9.59	9.9
45.0	106	-9.59	11.0
90.0	99	-9.59	10.6
135.0	103	-9.59	10.8
180.0	118	-9.59	11.6
225.0	101	-9.59	10.7
270.0	82	-9.59	9.7
315.0	68	-9.59	8.7

F(50,10) Curves Number of Contours: 1

AZ	HAAT	ERP	CONTOUR LEVELS (dBu):
(degs)	(m)	(dBk)	40.0
.0	86	-9.59	33.0
45.0	106	-9.59	36.5
90.0	99	-9.59	35.3
135.0	103	-9.59	36.1
180.0	118	-9.59	38.4
225.0	101	-9.59	35.7
270.0	82	-9.59	32.2
315.0	68	-9.59	29.3

Music Ministries, Inc. Requests CP NEW
Noncommercial Educational FM Broadcast
Station, Loogootee, IN. Three (3) Arc-
second terrain data used. Contours
Program from EDX Engineering, Inc. This
Exhibit Prepared by Paul Dean Ford, P.E.
January 20, 1992.

TITLE: WICR, Indianapolis, IN FM 204B1, 88.7mHz., 2.50Kw.302meters
Three (3) arc-second terrain data used
Center of Radiation: 557 Meters Above Mean Sea Level
302 Meters Antenna H. A. A. T.
2.50 Kw. E.R.P. (3.9794 dBk)

Site Coordinates:

Latitude:	39-53-59		
Longitude:	86-12-02		
Bearing	3-16 Kilometer	Effective	
(Deg.-True)	Average Terrain	Antenna Height	
.0	276.3 Meters	281.1 Meters	
45.0	256.4	301.0	
90.0	246.0	311.4	
135.0	241.2	316.2	
180.0	226.3	331.1	
225.0	250.4	307.0	
270.0	271.2	286.2	
315.0	275.4	282.0	
Average	255.4 Meters	302.0 Meters	

DISTANCES TO CONTOURS (Kilometers):

Frequency: 88.7000 MHz			
F(50,50) Curves			Number of Contours: 1
AZ	HAAT	ERP	CONTOUR LEVELS (dBu):
(degs)	(m)	(dBk)	60.0
.0	281	3.98	37.0
45.0	301	3.98	38.1
90.0	311	3.98	38.7
135.0	316	3.98	39.0
180.0	331	3.98	39.8
225.0	307	3.98	38.5
270.0	286	3.98	37.3
315.0	282	3.98	37.1

F(50,10) Curves			Number of Contours: 1
AZ	HAAT	ERP	CONTOUR LEVELS (dBu):
(degs)	(m)	(dBk)	40.0
.0	281	3.98	96.8
45.0	301	3.98	98.8
90.0	311	3.98	99.9
135.0	316	3.98	100.5
180.0	331	3.98	102.3
225.0	307	3.98	99.4
270.0	286	3.98	97.3
315.0	282	3.98	96.9

Music Ministries, Inc. Requests CP NEW
Noncommercial Educational FM Broadcast
Station, Loogootee, IN. Three (3) Arc-
second terrain data used. Contours
Program from EDX Engineering, Inc. This
Exhibit Prepared by Paul Dean Ford, P.E.
January 20, 1992.

TITLE: WEIU, Charleston, IL FM 205B1, 88.9mHz., 4.00Kw. 50 meters
Three (3) arc-second terrain data used
Center of Radiation: 253 Meters Above Mean Sea Level
50 Meters Antenna H. A. A. T.
4.00Kw. E.R.P.(6.0206 dBk)

Site Coordinates:

Latitude:	39-28-43	
Longitude:	88-10-21	
Bearing	3-16 Kilometer	Effective
(Deg.-True)	Average Terrain	Antenna Height
.0	207.7 Meters	45.7 Meters
45.0	199.2	54.2
90.0	213.5	39.9
135.0	203.9	49.5
180.0	176.8	76.6
225.0	210.6	42.8
270.0	210.9	42.5
315.0	204.6	48.8
Average	203.4 Meters	50.0 Meters

DISTANCES TO CONTOURS (Kilometers):

Frequency: 88.9000 MHz			
F(50,50) Curves		Number of Contours: 1	
AZ	HAAT	ERP	CONTOUR LEVELS (dBu):
(degs)	(m)	(dBk)	60.0
.0	46	6.02	17.5
45.0	54	6.02	19.1
90.0	40	6.02	16.4
135.0	50	6.02	18.2
180.0	77	6.02	22.9
225.0	43	6.02	16.9
270.0	43	6.02	16.9
315.0	49	6.02	18.1

F(50,10) Curves		Number of Contours: 1	
AZ	HAAT	ERP	CONTOUR LEVELS (dBu):
(degs)	(m)	(dBk)	54.0
.0	46	6.02	26.1
45.0	54	6.02	28.6
90.0	40	6.02	24.4
135.0	50	6.02	27.3
180.0	77	6.02	34.2
225.0	43	6.02	25.2
270.0	43	6.02	25.2
315.0	49	6.02	27.1

Music Ministries, Inc. Requests CP NEW
Noncommercial Educational FM Broadcast
Station, Loogootee, IN. Three (3) Arc-
second terrain data used. Contours
Program from EDX Engineering, Inc. This
Exhibit Prepared by Paul Dean Ford, P.E.
January 20, 1992.

TITLE: NEW-T, Columbus, IN FM 205FT, 88.9mHz., 0.01Kw.(DA) 65meters
Three (3) arc-second terrain data used
Center of Radiation: 271 Meters Above Mean Sea Level
65 Meters Antenna H. A. A. T.
0.01Kw. E.R.P.(DA) (-20.0dBk) assumed ND

Site Coordinates:

Latitude:	39-11-09		
Longitude:	85-57-37		
Bearing	3-16 Kilometer	Effective	
(Deg.-True)	Average Terrain	Antenna Height	
.0	205.5 Meters	65.5 Meters	
45.0	188.7	82.3	
90.0	188.7	82.3	
135.0	182.6	88.4	
180.0	186.1	84.9	
225.0	219.1	51.9	
270.0	240.6	30.4	
315.0	235.7	35.3	
Average	205.9 Meters	65.0 Meters	

DISTANCES TO CONTOURS (Kilometers):

Frequency: 88.9000 MHz

F(50,50) Curves Number of Contours: 1

AZ	HAAT	ERP	CONTOUR LEVELS (dBu):
(degs)	(m)	(dBk)	60.0
.0	65	-20.00	4.7
45.0	82	-20.00	5.3
90.0	82	-20.00	5.3
135.0	88	-20.00	5.5
180.0	85	-20.00	5.4
225.0	52	-20.00	4.2
270.0	30	-20.00	3.2
315.0	35	-20.00	3.4

F(50,10) Curves Number of Contours: 1

AZ	HAAT	ERP	CONTOUR LEVELS (dBu):
(degs)	(m)	(dBk)	54.0
.0	65	-20.00	6.6
45.0	82	-20.00	7.4
90.0	82	-20.00	7.4
135.0	88	-20.00	7.7
180.0	85	-20.00	7.5
225.0	52	-20.00	5.9
270.0	30	-20.00	4.5
315.0	35	-20.00	4.8

Music Ministries, Inc. Requests CP NEW
Noncommercial Educational FM Broadcast
Station, Loogootee, IN. Three (3) Arc-
second terrain data used. Contours
Program from EDX Engineering, Inc. This
Exhibit Prepared by Paul Dean Ford, P.E.
January 20, 1992.

TITLE:WKYU-FM, Bowling Green, KY FM 205C1, 88.9mHz., 100.0Kw., 219meters
Three (3) arc-second terrain data used
Center of Radiation: 384 Meters Above Mean Sea Level
219 Meters Antenna H. A. A. T.
100.0 Kw. E.R.P. (20.0dBk)

Site Coordinates:

	Latitude: 37-05-22	
	Longitude: 86-38-05	
Bearing	3-16 Kilometer	Effective
(Deg.-True)	Average Terrain	Antenna Height
.0	145.9 Meters	238.1 Meters
45.0	161.9	222.1
90.0	159.7	224.3
135.0	173.5	210.5
180.0	167.4	216.6
225.0	188.0	196.0
270.0	163.5	220.5
315.0	160.3	223.7
Average	165.0 Meters	219.0 Meters

DISTANCES TO CONTOURS (Kilometers):

Frequency: 88.9000 MHz

F(50,50) Curves Number of Contours: 1

AZ (degs)	HAAT (m)	ERP (dBk)	CONTOUR LEVELS (dBu):
.0	238	20.00	60.0
45.0	222	20.00	67.2
90.0	224	20.00	65.8
135.0	211	20.00	66.0
180.0	217	20.00	64.8
225.0	196	20.00	65.4
270.0	220	20.00	63.5
315.0	224	20.00	65.7
			66.0

F(50,10) Curves Number of Contours: 1

AZ (degs)	HAAT (m)	ERP (dBk)	CONTOUR LEVELS (dBu):
.0	238	20.00	54.0
45.0	222	20.00	99.0
90.0	224	20.00	97.3
135.0	211	20.00	97.6
180.0	217	20.00	96.0
225.0	196	20.00	96.7
270.0	220	20.00	94.2
315.0	224	20.00	97.1
			97.5

Music Ministries, Inc. Requests CP NEW
Noncommercial Educational FM Broadcast
Station, Loogootee, IN. Three (3) Arc-
second terrain data used. Contours
Program from EDX Engineering, Inc. This
Exhibit Prepared by Paul Dean Ford, P.E.
January 20, 1992.

TITLE: WVJC (CP), Mount Carmel, IL FM 206B, 89.1MHz., 50.0Kw., 109meters
Three (3) arc-second terrain data used
Center of Radiation: 237 Meters Above Mean Sea Level
109 Meters Antenna H. A. A. T.
50.0 Kw. E.R.P. (16.9897 dBk)

Site Coordinates:

	Latitude:	38-26-29	
	Longitude:	87-45-26	
	Bearing	3-16 Kilometer	Effective
	(Deg.-True)	Average Terrain	Antenna Height
.0		134.6 Meters	102.8 Meters
45.0		120.8	116.6
90.0		124.7	112.7
135.0		122.6	114.8
180.0		118.7	118.7
225.0		132.8	104.6
270.0		129.8	107.6
315.0		143.2	94.2
Average		128.4 Meters	109.0 Meters

DISTANCES TO CONTOURS (Kilometers):

Frequency: 89.1000 MHz

F(50,10) Curves			Number of Contours: 1
AZ	HAAT	ERP	CONTOUR LEVELS (dBu):
(degs)	(m)	(dBk)	80.0
.0	103	16.99	16.2
45.0	117	16.99	17.6
90.0	113	16.99	17.2
135.0	115	16.99	17.4
180.0	119	16.99	17.8
225.0	105	16.99	16.4
270.0	108	16.99	16.7
315.0	94	16.99	15.4

F(50,50) Curves			Number of Contours: 1
AZ	HAAT	ERP	CONTOUR LEVELS (dBu):
(degs)	(m)	(dBk)	60.0
.0	103	16.99	45.3
45.0	117	16.99	47.5
90.0	113	16.99	46.9
135.0	115	16.99	47.2
180.0	119	16.99	47.8
225.0	105	16.99	45.6
270.0	108	16.99	46.1
315.0	94	16.99	44.0

Music Ministries, Inc. Requests CP NEW
Noncommercial Educational FM Broadcast
Station, Loogootee, IN. Three (3) Arc-
second terrain data used. Contours
Program from EDX Engineering, Inc. This
Exhibit Prepared by Paul Dean Ford, P.E.
January 20, 1992.

TITLE: WFPL, Louisville, KY FM 207C1, 89.3mHz., 100.0Kw. 72meters
Three (3) arc-second terrain data used
Center of Radiation: 219 Meters Above Mean Sea Level
72 Meters Antenna H. A. A. T.
100.0Kw. E.R.P. (20.0dBk)

Site Coordinates:

Latitude:	38-14-40	
Longitude:	85-45-27	
Bearing	3-16 Kilometer	Effective
(Deg.-True)	Average Terrain	Antenna Height
.0	138.0 Meters	80.8 Meters
45.0	128.5	90.3
90.0	163.8	55.0
135.0	157.1	61.7
180.0	135.8	83.0
225.0	128.0	90.8
270.0	157.6	61.2
315.0	165.5	53.3
Average	146.8 Meters	72.0 Meters

DISTANCES TO CONTOURS (Kilometers):

Frequency: 89.3000 MHz			
F(50,50) Curves		Number of Contours: 1	
AZ	HAAT	ERP	CONTOUR LEVELS (dBu):
(degs)	(m)	(dBk)	100.0
.0	81	20.00	5.2
45.0	91	20.00	5.5
90.0	55	20.00	4.3
135.0	62	20.00	4.6
180.0	83	20.00	5.3
225.0	91	20.00	5.5
270.0	61	20.00	4.6
315.0	53	20.00	4.2

F(50,50) Curves		Number of Contours: 1	
AZ	HAAT	ERP	CONTOUR LEVELS (dBu):
(degs)	(m)	(dBk)	60.0
.0	81	20.00	47.3
45.0	91	20.00	49.3
90.0	55	20.00	40.8
135.0	62	20.00	42.6
180.0	83	20.00	47.8
225.0	91	20.00	49.4
270.0	61	20.00	42.5
315.0	53	20.00	40.3

Music Ministries, Inc. Requests CP NEW
Noncommercial Educational FM Broadcast
Station, Loogootee, IN. Three (3) Arc-
second terrain data used. Contours
Program from EDX Engineering, Inc. This
Exhibit Prepared by Paul Dean Ford, P.E.
January 20, 1992.

TITLE: WSCH, Aurora, IN FM 257A, 99.3mHz., 1.15Kw. 160meters
Site Coordinates:

Latitude: 38-57-55
Longitude: 84-56-51

Ten (10) Kilometer spacing required. Attached plot shows
clearance.

TITLE: WKDQ, Henderson, KY FM 258C, 99.5mHz., 100.0Kw. 300 meters
Site Coordinates:

Latitude: 37-52-57
Longitude: 87-32-27

Twenty-nine (29) Kilometer spacing required. Attached plot shows
clearance.

FM Interference Study

Job title: MUSIC MINISTRIES, INC.
Channel 204A
FM Translators included.
Coordinates: 38-38-30 86-59-57
Effective radiated power: 1.700 kW (2.30 dBk)
Antenna 78 meters (255 feet) above average terrain.
Safety zone: 75 km (46 miles).

This study utilized a copy of the Dataworld Database. Paul Dean Ford believes this information to be accurate and current; however, Paul Dean Ford does not assume any responsibility for any erroneous or incomplete data furnished as part of that database.